

**AMENDMENTS TO THE CLAIMS**

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

1-13. (Cancelled)

14. (Currently amended) An *in vitro* method for producing mature dendritic Langerhans cells, said method comprising:

- a. culturing cells selected from the group consisting of peripheral blood monocytes and bone marrow cells in a medium containing mammalian platelets;
- b. incubating the culture at about 30°C to about 40°C for a period sufficient to enable formation of mature dendritic Langerhans cells; and
- c. monitoring the cultured cells for the appearance of dendritic processes and markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of mature dendritic Langerhans cells, wherein the medium omits an exogenous cytokine, and wherein the platelets and the peripheral blood monocytes or bone marrow cells are derived from the same species.

15. (Previously presented) The method as claimed in claim 14, wherein the exogenous cytokine is granulocyte macrophage colony stimulating factor or interleukin-4.

16. (Previously presented) The method as claimed in claim 14 wherein the medium comprises RPMI-1640.

17. (Previously presented) The method as claimed in claim 14 wherein the cells are cultured for a period of about 2 to about 8 days.

18. (Previously presented) The method as claimed in claim 14 wherein the medium further comprises fetal calf serum.

19. (Previously presented) The method as claimed in claim 18, wherein the medium contains at least about 2% fetal calf serum.

20. (Previously presented) The method as claimed in claim 19, wherein the fetal calf serum is about 10%.

21. (Previously presented) The method as claimed in claim 14 wherein human platelets are added to the medium to develop mature dendritic Langerhans cells.

22. (Cancelled)

23. (Currently amended) A method for producing mature dendritic Langerhans cells *in vitro* comprising:

- a. preparing peripheral blood monocytes and/or bone marrow cells;
- b. culturing the peripheral blood monocytes or the bone marrow cells at about 30°C to about 40°C with platelets of the same species in a culture medium lacking an exogenous cytokine such that mature dendritic Langerhans cells are produced; and
- c. monitoring the cultured cells for the appearance of dendritic processes and

markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of mature dendritic Langerhans cells.

24. (Previously presented) The method of claim 23 further comprising analyzing the morphology of mature human dendritic Langerhans cells produced.

25. (Previously presented) The method of claim 23 further comprising analyzing the mature dendritic Langerhans cells produced by flow cytometry.

26. (Previously presented) The method of claim 23 wherein the peripheral blood monocytes, the platelets, and the mature dendritic Langerhans cells produced are human.

27. (Cancelled)

28. (Currently amended) An *in vitro* method for producing mature dendritic Langerhans cells, said method comprising:

a. culturing cells selected from the group consisting of peripheral blood monocytes and bone marrow cells in a medium containing mammalian platelets;

b. incubating the culture at about 30°C to about 40°C for a period sufficient to enable formation of mature dendritic Langerhans cells, and

c. monitoring the cultured cells for the appearance of dendritic processes and markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of

mature dendritic Langerhans cells, wherein the platelets and the peripheral blood monocytes or bone marrow cells are derived from the same species.

29. (Currently amended) A method for producing mature dendritic Langerhans cells *in vitro* comprising:

a. preparing peripheral blood monocytes and/or bone marrow cells;

b. culturing the peripheral blood monocytes or the bone marrow cells at about 30°C to about 40°C with platelets of the same species in a culture medium such that mature dendritic Langerhans cells are produced; and

c. monitoring the cultured cells for the appearance of dendritic processes and markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of mature dendritic Langerhans cells.

30. (Currently amended) A method for producing mature dendritic Langerhans cells *in vitro* comprising:

a. preparing peripheral blood monocytes and/or bone marrow cells;

b. culturing the peripheral blood monocytes or the bone marrow cells at about 30V to about 40°C with platelets in a culture medium such that mature dendritic Langerhans cells are produced; and

c. monitoring the cultured cells for the appearance of dendritic processes and markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of mature dendritic Langerhans cells, wherein the peripheral blood monocytes and/or platelets are rat cells and the ~~and/or bone marrow cells and the platelets may be independently selected from the group of rat cells and~~ are mouse cells.

31. (Previously presented) The method of claim 30, wherein the culture medium lacks an exogenous cytokine.

32. (Currently amended) A method for producing mature human dendritic Langerhans cells *in vitro* comprising:

- a. preparing human peripheral blood monocytes and/or human bone marrow cells;
- b. culturing the human peripheral blood monocytes or the human bone marrow cells at about 30°C to about 40°C with human platelets in a culture medium such that mature human dendritic Langerhans cells are produced, and
- c. monitoring the cultured cells for the appearance of dendritic processes and markers associated with dendritic Langerhans cells ~~dendritic morphology and confirming the presence of dendritic processes,~~

wherein the presence of dendritic morphology and processes indicates growth of mature dendritic Langerhans cells, wherein the mature human dendritic Langerhans cells have dendritic processes and more than about 50% display reactivity to anti-HLA-DR, anti-CD40, and anti-CD86 monoclonal antibodies and approximately 20% of the mature human dendritic Langerhans cells display reactivity to anti-CD1a, anti-CD80, and anti-CD83 monoclonal antibodies.

33. (Previously presented) The method of claim 32, wherein the culture medium lacks an exogenous cytokine.

34. (Previously presented) The method of claim 23 wherein the peripheral blood monocytes are human peripheral blood monocytes, the platelets are human platelets, and the dendritic Langerhans cells produced are mature human dendritic Langerhans cells.

35. (Previously presented) The method of claim 14 or 28 wherein the platelets and the peripheral blood monocytes or bone marrow cells are derived from the same species.

36. (Previously presented) The method of claim 35 wherein the same species is human.

37. (Canceled)

38. (Previously presented) The method of claim 14 or 28 wherein the platelets are from rat and peripheral blood monocytes or bone marrow cells are from mouse.